Deswik.Sched
GANTT CHART SCHEDULER

A powerful Gantt chart scheduler specifically designed to handle the challenges of mine planning

From interactive Gantt charts to PERT network diagrams, Deswik. Sched is tailored for the needs of mine planners. Encompassing both rate and duration based scheduling, it easily handles the massive data sets that modern detailed planning requires; integrating production, ancillary and project activities with ease. Built around a powerful resource leveling engine; you'll understand your resourcing better than ever, setting priorities, constraints and objectives designed to reflect the real world requirements of actual mining activities.

Unrestricted by timescales, long-term and short-term planning horizons sit seamlessly together in a single schedule. By accessing the comprehensive suite of flexible reporting options, you'll generate more accurate output data in more meaningful ways, including detailed Critical and Point to Point path analysis.

Intuitive and flexible, Deswik.Sched can handle the planning needs of any mining sector; underground or open pit, coal or metal.

COMPREHENSIVE SCHEDULING FUNCTIONALITY

» Familiar Gantt chart interface with inbuilt mining functionality designed for massive data sets.

» Integrates production, ancillary and project activities with ease, using rate or duration-based scheduling.

» Universal application – model open pit and underground mines in the same schedule.

» Variety of configurable scheduler layouts, including:

- Task and Resource Gantts

- PERT network diagram

- Linked reporting and 3D solid animation viewers.

» Generate complex scheduling data through powerful spreadsheet-style formula tools, referencing data from a variety of sources, including lookup tables, range lookups, curves and global constants.

» Innovative task and dependency options including:

- Hammock tasks

- Percentage overlap dependencies.

TIME MANAGEMENT

» Detailed work calendars for scheduling and reporting from a shift basis through to a 100yr+ Life Of Mine.

» Flexible combination of manual scheduling tools for short term and automated long term scheduling.

» Scheduled task duration is calculated in seconds, allowing for infinitely customizable period reporting.

» Construct detailed time usage models using:

- Detailed rules based resource calendars

- Grid based time usage data

- Comprehensive time based reporting fields.

» Integrate long, medium and short-term plans in one schedule, set specified planning horizons.

FLEXIBLE RESOURCING

» Responsive resource assignment; pools assign resources based on task priorities and resource   availabilities.

» Build detailed and specific production rates with easy formula builders.

» Resources can have a specific rate or group rates that will be applied depending on the task are assigned to account for variations in:

- Design and environmental factors

- Geological and geotechnical factors

- Other factors such as efficiency and mining priorities.

» Apply time variant fields to reduce production rates over specific periods.

» Manual or rules-based resource assignment for individual or pooled resources.

» Resource specific priorities and proximity de-rating for gear working close together.

» Incorporate resource specific maintenance requirements including:

- Maintenance events based on equipment hours

- Retire and replace equipment based on a defined lifespan.
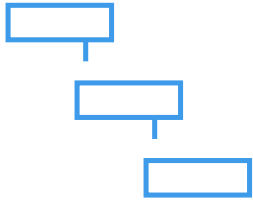
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OPTIMIZED RESOURCE UTILIZATION

» Powerful resource leveling engine with superior features including multi-pass leveling and input path scheduling.

» Mirror real world objectives with dependencies, priorities, targets, constraints and resource limitations.

» Applies a proprietary algorithm across the scheduled tasks in order to prevent over-allocation of resources by delaying lower priority tasks that cannot be resourced.

» Tiered priority structure incorporating scheduling priorities, resource priorities and resource input path.

» Sophisticated resource leveling functions including:
  - Fixed or preferential task grouping
  - Multilevel targeting and quantity constraints
  - Group constraints and blocking tasks
  - Task selection based on deadheading time for significant resource relocations.

» Multi pass Resource leveling allows complex process modelling with specified rules for each leveling pass.

» Interactive 'stepwise' troubleshooting of resource leveling process.

INTEGRATED REPORTING

» User-defined pivot-style reports can be quickly customized to drill into the details of a schedule.

» Unlimited options for pivot based reporting layout includes:
  - Task and resource filtering
  - Report based formulas
  - Incorporated graphing options

» Live reports automatically recalculate when the Gantt time period is adjusted.

» Record multiple schedule baselines to show schedule changes over time. Automated tools to keep schedules up-to-date.

» Comprehensive suite of schedule analysis tools including:
  - Critical path analysis between selected tasks.
  - Dependency and conflict filtering.

SCHEDULE INTEGRATION

» Operates stand-alone or integrated with Deswik.CAD and Deswik.IS.

» Use the Deswik.SViz or Deswik.vSched platforms for quick 3D visualization of existing Deswik.CAD designs.

» Copy and paste reports and data directly into Microsoft Excel.

» Easy integration with a number of other scheduling packages.

» Extensive sub-projecting capabilities for multiple schedule inputs.

» Expand functionality with other Deswik modules including:
  - Deswik.IS
  - Deswik.Blend

Deswik®